

Testimony for Environmental Regulation Committee May 3, 2000 Regarding Bureau of Radiation Control Presented by Texas Radiation Advisory Board

Jack S. Krohmer, Ph.D., Chair

1100 W. 49th Street Austin, Texas 78756 512/834-6688 Testimony for House Environmental Regulation Committee May 3, 2000 Regarding Bureau of Radiation Control Presented by Texas Radiation Advisory Board Jack S. Krohmer, Ph.D., Chair

Members of the Environmental Regulation Committee,

The Texas Radiation Advisory Board thanks you for the opportunity to provide recommendations on radiation policies of the state.

I would like to take this opportunity to direct your attention to an issue which the Texas Radiation Advisory Board believes is important to the success of the state agencies in carrying out the radiation policies that the legislature creates. The issue is one the Texas Radiation Advisory Board has reviewed over the years, the appropriate level of staff expertise which must be developed and maintained at the Bureau of Radiation Control.

It has become apparent to the Texas Radiation Advisory Board that the Bureau of Radiation Control faces the loss of its retirement eligible work force over the next five years. An estimated 38 senior health physicists who are responsible for safety evaluations, inspections, emergency response, setting standards and investigation of accidents and incidents, will become eligible for retirement. With an exodus of this magnitude, amounting to some 650 years of experience, the state will face costs and consequences of training personnel to assume these duties. Each individual replacing a retiree, depending on the person's background and training, will need to attend up to five core courses planned by the Nuclear Regulatory Commission. Additionally, continual training is needed in any given year for specific groups of technical staff. The Bureau of Radiation Control employs 104 persons in technical positions. Routinely, training is needed to develop and maintain the expertise of this work force. During fiscal year 2000, the bureau needed to send staff to attend 64 training slots in basic training courses in order to keep the Bureau of Radiation Control employees current in the necessary training. As retirements create open positions, the training needs are expected to increase, especially since the state salaries are not competitive with industry and the federal government and fully trained applicants are rare. (A list of training needs is attached for fiscal years 2000 and 2001.)

If an adequate staff is not maintained, several consequences of serious concern for the State of Texas could result.

- 1. Protecting public health and safety requires expertise which newly hired individuals will likely not have.
- 2. The Agreement between the Nuclear Regulatory Commission and the Governor of Texas makes Texas Department of Health (through its Bureau of Radiation Control) the agency with primary regulatory responsibility for radiation protection in the state. The Nuclear Regulatory Commission regularly audits the Bureau of Radiation Control to review the credentials of the staff and expects adequately trained personnel; without such employees the agreement is jeopardized. If the agreement were jeopardized, Texas businesses would face higher fees if functions performed by the Bureau of Radiation Control were provided by the Nuclear Regulatory Commission.
- 3. Mammography inspectors require federal Food and Drug Administration certified training which takes place out of state. Without these inspectors, the federal government would have to inspect Texas facilities and the Texas certification and accreditation would not be able to operate, although Texas law directs Texas Department of Health to perform the mammography accreditation and certification.

In replacing the work force, Bureau of Radiation Control expects to need to provide specialized training. Being able to hire experienced people is questionable with state salaries being beneath both industry and the Nuclear Regulatory Commission's salary structure. Training will be needed to make sure employees are functioning at the proper level and to have incentives to retain them.

Historically, the Nuclear Regulatory Commission funded travel, per diem, and tuition for the core courses required for radioactive material licensing and inspection staff. These courses are the intensive five-week basic radiological health course at Oak Ridge National Laboratory, the radioactive material licensing course, the radioactive material inspection procedures course, the nuclear medicine course, the industrial radiography course, and the well logging course. The Nuclear Regulatory Commission discontinued this funding in 1996, due to pressure from nonagreement states and reactor licensees who were required to pay fees to cover the entire budget of Nuclear Regulatory Commission. All these courses are held out of state except

the well logging course which is held in Houston, Texas.

The Texas Department of Health provided some funding to send staff to a few of these courses until September 1, 1997, when a rider in the appropriations bill, Article IX, Sec. 64, cut travel funds to 90% of the amount spent in fiscal year 1997. This resulted in a large cut in travel funds due to vacant positions in Bureau of Radiation Control regional offices that used no travel funds that fiscal year and the fact that Bureau of Radiation Control had always conserved travel funds when possible in case they need to respond to emergencies. The current appropriation continues to limit the travel to the amount established for FY 98; therefore, Bureau of Radiation Control was only able to spend a limited amount of funds on Nuclear Regulatory Commission training courses. Note that this travel "cap" also restricts Bureau of Radiation Control's ability to perform routine inspections and incident investigations.

The second problem concerns funding staff to attend college classes. Prior to the current fiscal year, Texas Department of Health had an excellent program to allow funding and time off for staff to attend college courses and a program that provided stipends to allow full time employees time off for one year to obtain advanced degrees in a field related to their job. The appropriation for Texas Department of Health starting September 1, 1999, added the following Rider 19 to Article II:

"Education Leave, Tuition Reimbursement, and Educational Stipend Programs. None of the funds appropriated above in Goals A through E may be spent for educational programs that provide tuition reimbursement, stipends, or educational leave for department employees. The Commissioner of Health must provide prior written approval of the educational leave time, the amount of the stipend or tuition reimbursement, and any other educational program benefit provided to a department employee. The amount of tuition or fees paid by the department, to an institution of higher education for semester hour credit for a department employee, may not exceed the per semester credit charged by that institution for in-state tuition."

Only funds from the Texas Department of Health Goal F, Indirect Administration can now be used for college classes and that budget was cut several million dollars this biennium. The net effect has been a severe restriction in educational training.

I hope this background information we are giving you will help you to evaluate the funding needs of the Bureau of Radiation Control for travel and training in order to continue to serve the State of Texas in a professional and economic manner.

To conclude:

- 1. The Texas Radiation Advisory Board encourages your committee to work with the Texas House Appropriation Committee and the Senate Finance Committee Chairs so that the next biennial budget provides adequate resources for technical staff training and inspections. The Bureau of Radiation Control must have adequate funds for travel and appropriate funds so that the staff can perform all necessary inspections, emergency response exercises, incident investigations, and for appropriate Bureau of Radiation Control staff to attend Nuclear Regulatory Commission training courses.
- 2. In addition, we encourage you to take whatever steps are necessary to remove the appropriation rider that limits higher educational programs for the Bureau of Radiation Control technical staff.

Attachment Explanation of Training Needs

An estimated 38 senior health physicists employed by the Bureau of Radiation Control who are responsible for safety evaluations, inspections, emergency response, setting standards and investigation of accidents and incidents, will become eligible for retirement. With an exodus of this magnitude, amounting to some 650 years of experience, the state will face costs and consequences of training personnel to assume these duties. Each individual replacing a retiree, depending on the person's background and training, will need to attend up to five core courses planned by the Nuclear Regulatory Commission. Additionally, continual training is needed in any given year for specific groups of technical staff. The Bureau of Radiation Control employs 104 persons in technical positions. Routinely, training is needed to develop and maintain the expertise of this work force. During fiscal year 2000, the bureau needed to send staff to attend 64 training slots in basic training courses in order to keep the Bureau of Radiation Control employees current in the necessary training. As retirements create open positions, the training needs are expected to increase, especially since the state salaries are not competitive with industry and the federal government and fully trained applicants are rare.

FY2000 BUREAU OF RADIATION CONTROL TRAINING NEEDS ASSESSMENT CENTRAL OFFICE STAFF

COURSE	LOCATION	NAME	TUITION	TR	RAVEL	TO	TAL
Accelerator Training		Nat. Res. Spec. IV	\$ 0.00	\$	50.00	\$	50.00
Annual Meeting, American Health Physics Society		Manager II	\$ 265.00	\$	1,200.00	\$	1,465.00
Basics of Laser and Optics		Nat. Res. Spec. V	\$ 625.00	\$	600.00	\$	1,225.00
Calibration of Radiation Survey Instruments	Boulder, CO	Nat. Res. Spec. IV	\$ 1,195.00	\$	1,200.00	\$	2,395.00
Diagnostic and Therapeutic Nuclear Medicine	Houston, TX	Nat. Res. Spec. IV	\$ 1,987.00	\$	650.00	\$	2,637.00
		Nat. Res. Spec. VI	\$ 1,987.00	\$	650.00	\$	2,637.00
Environmental Monitoring	Oak Ridge, TN	Nat. Res. Spec. VI	\$ 1,542.00	\$	1,185.00	\$	2,727.00
Exercise Development		Nat. Res. Spec. VI	\$ 0.00	\$	125.00	\$	125.00
		Nat. Res. Spec. VI	\$ 1,542.00	\$	1,185.00	\$	2,727.00
FEMA Train-the-Trainer	Berryville, VA	Nat. Res. Spec. IV	\$ 0.00	\$	140.00	\$	140.00
	Berryville, VA	Nat. Res. Spec. V	\$ 0.00	\$	140.00	\$	140.00
	Berryville, VA	FTE-A	\$ 0.00	\$	140.00	\$	140.00
	Berryville, VA	FTE-B	\$ 0.00	\$	140.00	\$	140.00
Industrial Radiography	Niantic, CT	Nat. Res. Spec. IV	\$ 905.00	\$	1,340.00	\$	2,245.00
Industrial Radiography	Niantic, CT	Nat. Res. Spec. VI	\$ 905.00	\$	1,340.00	\$	2,245.00
Inspecting for Performance	Varies	Nat. Res. Spec. VI	\$ 265.00	\$	1,185.00	\$	1,450.00
Inspection Procedures	Chattanooga, TN	Nat. Res. Spec. V	\$ 1,500.00	\$	1,200.00	\$	2,700.00
Licensing Practices and Procedures	Chattanooga, TN	Nat. Res. Spec. IV	\$ 0.00	\$	1,500.00	\$	1,500.00
Introductory Health Physics	Rockville, MD	Nat. Res. Spec. VI	\$ 1,500.00	\$	1,185.00	\$	2,685.00
Radioactive Waste Management	Chattanooga, TN	Nat. Res. Spec. VI	\$ 0.00	\$	1,200.00	\$	1,200.00
Radiological Emergency Preparedness Planning	Emmitsburg, MD	Nat. Res. Spec. VI	\$ 0.00	\$	125.00	\$	125.00
Radiological Accident Assessment	Emmitsburg, MD	Nat. Res. Spec. VI	\$ 0.00	\$	125.00	\$	125.00
Radiological Emergency Response Operations	Berryville, VA	Nat. Res. Spec. VI	\$ 0.00	\$	125.00	\$	125.00
Teletherapy and Brachytherapy	Houston, TX	Nat. Res. Spec. VI	\$ 1,925.00	\$	650.00	\$	2,575.00
		Nat. Res. Spec. IV	\$ 1,925.00	\$	650.00	\$	2,575.00
		Nat. Res. Spec. VI	\$ 1,925.00	\$	650.00	\$	2,575.00
TLD Reader Training	Solon, OH	Nat. Res. Spec. IV	\$ 1,700.00	\$	1,200.00	\$	2,900.00
University Course Work Towards Master's Degree in Health Physics	UT, Austin	Nat. Res. Spec. V	\$ 750.00	\$	0.00	\$	750.00
FY 2000 CENTRAL TOTALS			\$22,443.00	\$	19,880.00	\$	42,323.00

FY2000 BUREAU OF RADIATION CONTROL TRAINING NEEDS ASSESSMENT

REGIONAL OFFICE STAFF

COURSE	LOCATION	NAME	TUITION	TRAVEL	TOTAL	
Basics of Lasers and Optics		Nat. Res. Spec. IV	\$ 625.00	\$ 600.00	\$ 1,225.00	
		Nat. Res. Spec. IV	\$ 625.00	\$ 600.00	\$ 1,225.00	
Health Physics 5-Week Course	Oak Ridge, TN	Nat. Res. Spec. VI	\$ 7,125.00	\$ 4,425.00	\$ 11,550.00	
Inspecting for Performance - RAM Version	Varies	Nat. Res. Spec. VI	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. V	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. VI	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. VI	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
Industrial Radiography	Niantic, CT	Nat. Res. Spec. V	\$ 905.00	\$ 1,185.00	\$ 2,090.00	
		Nat. Res. Spec. IV	\$ 905.00	\$ 1,185.00	\$ 2,090.00	
Inspection Procedures	Chattanooga, TN	Nat. Res. Spec. VI	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. VI	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
Inspection Procedures	Chattanooga, TN	Nat. Res. Spec. IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. V	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
		Nat. Res. Spec. V	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
Introductory Health Physics	Rockville, MD	Nat. Res. Spec. VI	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
Radiation Protection for Pool- type Irradiators	Canada (in the past)	Engineer IV	\$ 1,500.00	\$ 1,185.00	\$ 2,685.00	
Transportation of Radioactive Materials	Chattanooga, TN	Nat. Res. Spec. VI	\$ 675.00	\$ 1,185.00	\$ 1,860.00	
Teletherapy and Brachytherapy	Houston, TX	Nat. Res. Spec. VI	\$ 1,925.00	\$ 1,185.00	\$ 3,110.00	
FY 2000 REGIONAL TOTALS			\$38,285.00	\$ 30,510.00	\$ 68,795.00	
FY 2000 - TOTAL CENTAL AND REGIONAL STAFF TRAINING			\$60,728.00	\$ 50,390.00	\$ 111,118.00	

FY2001 BUREAU OF RADIATION CONTROL TRAINING NEEDS ASSESSMENT

CENTRAL OFFICE STAFF

COURSE	LOCATION	NAME	TUITION	TRAVEL	TOTAL		
Air Sampling for Radioactive Materials	Oak Ridge, TN	Nat. Res. Spec. IV	\$ 1,542.00	\$ 1,200.00	\$ 2,742.00		
		Nat. Res. Spec. IV	\$ 1,542.00	\$ 1,200.00	\$ 2,742.00		
Annual Meeting of American Health Physics Society		Manager II	\$ 265.00	\$ 1,200.00	\$ 1,465.00		
Basics Laser Introduction		Nat. Res. Spec. VI	\$ 625.00	\$ 900.00	\$ 1,525.00		
		Nat. Res. Spec. V	\$ 625.00	\$ 600.00	\$ 1,225.00		
		Nat. Res. Spec. V	\$ 625.00	\$ 600.00	\$ 1,225.00		
FEMA Train-the Trainer	Berryville, VA	Nat. Res. Spec. IV	\$ 0.00	\$ 140.00	\$ 140.00		
Health Physics Technology	Chattanooga, TN	Nat. Res. Spec. VI	\$ 0.00	\$ 1,500.00	\$ 1,500.00		
		Nat. Res. Spec. IV	\$ 0.00	\$ 1,500.00	\$ 1,500.00		
		Nat. Res. Spec. VI	\$ 0.00	\$ 1,500.00	\$ 1,500.00		
		Nat. Res. Spec. V	\$ 0.00	\$ 1,500.00	\$ 1,500.00		
Industrial Radiography	Niantic, CT	Nat. Res. Spec. VI	\$ 905.00	\$ 1,185.00	\$ 2,090.00		
Inspecting for Performance	varies	Nat. Res. Spec. VI	\$ 265.00	\$ 1,185.00	\$ 1,450.00		
Inspection Procedures	Chattanooga, TN	Nat. Res. Spec. V	\$ 1,500.00	\$ 1,100.00	\$ 2,600.00		
		Nat. Res. Spec. V	\$ 1,500.00	\$ 1,100.00	\$ 2,600.00		
		Nat. Res. Spec. V	\$ 1,500.00	\$ 1,100.00	\$ 2,600.00		
Introduction to Health Physics	Rockville, MD	Nat. Res. Spec. IV	\$ 0.00	\$ 1,200.00	\$ 1,200.00		
Irradiator Technology	Canada (last class)	Nat. Res. Spec. VI	\$ 1,700.00	\$ 1,800.00	\$ 3,500.00		
Laser Course		Nat. Res. Spec. IV	\$ 200.00	\$ 1,140.00	\$ 1,340.00		
Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)	varies	Nat. Res. Spec. VI	\$ 1,250.00	\$ 1,200.00	\$ 2,450.00		
		Nat. Res. Spec. VI	\$ 1,250.00	\$ 1,200.00	\$ 2,450.00		
Safety Aspects of Well Logging	Houston, TX	Nat. Res. Spec. IV	\$ 0.00	\$ 650.00	\$ 650.00		
		Nat. Res. Spec. VI	\$ 0.00	\$ 650.00	\$ 650.00		
		Nat. Res. Spec. V	\$ 0.00	\$ 650.00	\$ 650.00		
Root Cause/Incident Investigation Workshop	varies	Nat. Res. Spec. VI	\$ 1,534.00	On-site	\$ 1,534.00		
Teletherapy and Brachytherapy	Houston, TX	Nat. Res. Spec. VI	\$ 1,925.00	\$ 1,185.00	\$ 3,110.00		
		Nat. Res. Spec. VI	\$ 1,925.00	\$ 1,185.00	\$ 3,110.00		
Transportation of Radioactive Materials	Chattanooga, TN	Nat. Res. Spec. IV	\$ 675.00	\$ 1,000.00	\$ 1,675.00		
		Nat. Res. Spec. VI	\$ 675.00	\$ 1,000.00	\$ 1,675.00		
		Nat. Res. Spec. V	\$ 675.00	\$ 1,000.00	\$ 1,675.00		
		Nat. Res. Spec. V	\$ 675.00	\$ 1,000.00	\$ 1,675.00		
University Course Work Towards Master's Degree in Health Physics	Austin, TX	Nat. Res. Spec. V	\$ 750.00	\$ 0.00	\$ 750.00		
FY 2001 TOTAL CENTRAL OFFICE STAFF TRAINING			\$24,128.00	\$ 32,370.00	\$56,498.00		

${\bf FY2001}\\ {\bf BUREAU~OF~RADIATION~CONTROL-TRAINING~NEEDS~ASSESSMENT}\\ {\bf REGIONAL~OFFICE~STAFF}$

COURSE	LOCATION	NAME	TUITION	TRAVEL	TOTAL
Basics of Lasers and Optics		Nat. Res. Spec. IV	\$625.00	\$600.00	\$1,225.00
		Nat. Res. Spec. IV	\$625.00	\$600.00	\$1,225.00
		Nat. Res. Spec. IV	\$625.00	\$600.00	\$1,225.00
		Nat. Res. Spec. IV	\$625.00	\$600.00	\$1,225.00
		Nat. Res. Spec. IV	\$625.00	\$600.00	\$1,225.00
		Nat. Res. Spec. IV	\$625.00	\$600.00	\$1,225.00
		VACANT POSITION	\$625.00	\$600.00	\$1,225.00
Diagnostic and Therapeutic Nuclear Medicine	Houston, TX	Nat. Res. Spec. VI	\$1,925.00	\$1,185.00	\$3,110.00
Health Physics – 5-Week Course	Oak Ridge, TN	Nat. Res. Spec. IV	\$7,125.00	\$4,425.00	\$11,550.00
		Nat. Res. Spec. V	\$7,125.00	\$4,425.00	\$11,550.00
Incident Investigation – Root Cause	varies	Nat. Res. Spec. VI	\$1,534.00	\$1,185.00	\$2,719.00
Inspecting for Performance - RAM Version	varies	Nat. Res. Spec. VI	\$1,500.00	\$1,185.00	\$2,685.00
		Nat. Res. Spec. V	\$1,500.00	\$1,185.00	\$2,685.00
		Nat. Res. Spec. V	\$1,500.00	\$1,185.00	\$2,685.00
Inspection Procedures	Chattanooga, TN	Nat. Res. Spec. IV	\$1,500.00	\$1,100.00	\$2,600.00
		Nat. Res. Spec. IV	\$1,500.00	\$1,100.00	\$2,600.00
Inspection Procedures	Chattanooga, TN	Nat. Res. Spec. IV	\$1,500.00	\$1,100.00	\$2,600.00
		Nat. Res. Spec. IV	\$1,500.00	\$1,100.00	\$2,600.00
		Nat. Res. Spec. IV	\$1,500.00	\$1,100.00	\$2,600.00
		Nat. Res. Spec. IV	\$1,500.00	\$1,100.00	\$2,600.00
		Nat. Res. Spec. IV	\$1,500.00 \$1,100.00		\$2,600.00
		VACANT POSITION	\$1,500.00	\$1,100.00	\$2,600.00
Teletherapy and Brachytherapy	Houston, TX	Nat. Res. Spec. VI	\$1,925.00	\$1,185.00	\$3,110.00
		Nat. Res. Spec. VI	\$1,925.00	\$1,185.00	\$3,110.00
		Nat. Res. Spec. VI	\$1,925.00	\$1,185.00	\$3,110.00
Radiation Protection for Pool- type Irradiators	Canada (last time)	Nat. Res. Spec. V	\$1,500.00	\$1,185.00	\$2,685.00
Safety Aspects of Well Logging	Houston, TX	Nat. Res. Spec. IV \$0.00 \$650.00		\$650.00	\$650.00
Transportation of Radioactive Materials	Chattanooga, TN	Nat. Res. Spec. VI	\$675.00	\$1,185.00	\$1,860.00
		Nat. Res. Spec. VI	\$675.00	\$1,185.00	\$1,860.00
		Engineer IV	\$675.00	\$1.185.00	\$1.860.00
FY 2001 TOTAL REGIONAL STAFF TRAINING			\$47,884.00	\$36,720.00	\$84,604.00
FY 2001 - TOTAL CENTAL AND REGIONAL STAFF TRAINING			\$72,012.00	\$69,090.00	\$141,102.00

OVERALL TOTALS FY 2000 and FY 2001

	FY 2000 TUITION		FY 2000 TRAVEL		FY 2001 TUITION	FY2001 TRAVEL	TOTALS
CENTRAL OFC STAFF	\$	22,443.00	\$	19,880.00	\$24,128.00	\$ 32,370.00	\$ 98,821.00
REGIONAL OFC STAFF	\$	38,285.00	\$	30,510.00	\$47,884.00	\$ 36,720.00	\$ 153,399.00
TOTALS	\$	60,728.00	\$	50,390.00	\$72,012.00	\$ 69,090.00	\$ 252,220.00